

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Insecta Mundi

Center for Systematic Entomology, Gainesville,
Florida

11-2-2011

A new Nearctic species of *Placonotus* MacLeay (Coleoptera: Laemophloeidae)

Michael C. Thomas

Florida State Collection of Arthropods, Michael.Thomas@freshfromflorida.com

Follow this and additional works at: <https://digitalcommons.unl.edu/insectamundi>

 Part of the [Entomology Commons](#)

Thomas, Michael C., "A new Nearctic species of *Placonotus* MacLeay (Coleoptera: Laemophloeidae)" (2011). *Insecta Mundi*. 713.

<https://digitalcommons.unl.edu/insectamundi/713>

This Article is brought to you for free and open access by the Center for Systematic Entomology, Gainesville, Florida at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Insecta Mundi by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

INSECTA MUNDI

A Journal of World Insect Systematics

0201

A new Nearctic species of *Placonotus* MacLeay
(Coleoptera: Laemophloeidae)

Michael C. Thomas
Florida State Collection of Arthropods
Florida Department of Agriculture and Consumer Services
P.O. Box 147100
Gainesville, FL 32614-7100

Date of Issue: November 2, 2011

Michael C. Thomas

A new Nearctic species of *Placonotus* MacLeay (Coleoptera: Laemophloeidae)

Insecta Mundi 0201: 1-4

Published in 2011 by

Center for Systematic Entomology, Inc.

P. O. Box 141874

Gainesville, FL 32614-1874 U. S. A.

<http://www.centerforsystematicentomology.org/>

Insecta Mundi is a journal primarily devoted to insect systematics, but articles can be published on any non-marine arthropod. Topics considered for publication include systematics, taxonomy, nomenclature, checklists, faunal works, and natural history. **Insecta Mundi** will not consider works in the applied sciences (i.e. medical entomology, pest control research, etc.), and no longer publishes book reviews or editorials. **Insecta Mundi** publishes original research or discoveries in an inexpensive and timely manner, distributing them free via open access on the internet on the date of publication.

Insecta Mundi is referenced or abstracted by several sources including the Zoological Record, CAB Abstracts, etc. **Insecta Mundi** is published irregularly throughout the year, with completed manuscripts assigned an individual number. Manuscripts must be peer reviewed prior to submission, after which they are reviewed by the editorial board to ensure quality. One author of each submitted manuscript must be a current member of the Center for Systematic Entomology.

Managing editor: Paul E. Skelley, e-mail: insectamundi@gmail.com

Production editor: Michael C. Thomas & Ian Stocks, e-mail: insectamundi@gmail.com

Editorial board: J. H. Frank, M. J. Paulsen

Subject editors: G.B. Edwards, J. Eger, A. Rasmussen, F. Shockley, G. Steck, Ian Stocks, A. Van Pelt, J. Zaspel

Printed copies deposited in libraries of:

CSIRO, Canberra, ACT, Australia

Museu de Zoologia, São Paulo, Brazil

Agriculture and Agrifood Canada, Ottawa, ON, Canada

The Natural History Museum, London, Great Britain

Muzeum i Instytut Zoologiczny PAN, Warsaw, Poland

National Taiwan University, Taipei, Taiwan

California Academy of Sciences, San Francisco, CA, USA

Florida Department of Agriculture and Consumer Services, Gainesville, FL, USA

Field Museum of Natural History, Chicago, IL, USA

National Museum of Natural History, Smithsonian Institution, Washington, DC, USA

Zoological Institute of Russian Academy of Sciences, Saint-Petersburg, Russia

Electronic copies in PDF format:

Printed CD mailed to all members at end of year.

Florida Center for Library Automation: <http://purl.fcla.edu/fcla/insectamundi>

University of Nebraska-Lincoln, Digital Commons: <http://digitalcommons.unl.edu/insectamundi/>

Goethe-Universität, Frankfurt am Main: <http://edocs.ub.uni-frankfurt.de/volltexte/2010/14363/>

Author instructions available on the Insecta Mundi page at:

<http://www.centerforsystematicentomology.org/insectamundi/>

Printed copies deposited in libraries (ISSN 0749-6737)

Electronic copies in PDF format (On-Line ISSN 1942-1354, CDROM ISSN 1942-1362)

Copyright held by the author(s). This is an open access article distributed under the terms of the Creative Commons, Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original author(s) and source are credited. <http://creativecommons.org/licenses/by-nc/3.0/>

A new Nearctic species of *Placonotus* MacLeay (Coleoptera: Laemophloeidae)

Michael C. Thomas

Florida State Collection of Arthropods
Florida Department of Agriculture and Consumer Services
P.O. Box 147100
Gainesville, FL 32614-7100
michael.thomas@freshfromflorida.com

Abstract. *Placonotus falinorum* Thomas, **new species** (Coleoptera: Laemophloeidae), is described from Kansas. Habitus and genitalic details are illustrated and the species is distinguished from other New World members of the genus. *Placonotus maya* Thomas is newly recorded from Honduras.

Introduction

In a relatively poorly studied, predominantly tropical family like the Laemophloeidae undescribed species are commonly encountered in many collections but the American Midwest is rarely the source of them. Nevertheless, examination of specimens from the Snow Entomological Collection (SEMC) at the University of Kansas revealed a series of an anomalous *Placonotus* MacLeay collected in Kansas that is described below as a new species. The new species brings to seven the number of known Nearctic species of *Placonotus*.

Placonotus falinorum Thomas, new species

Figures 1-3

Diagnosis. The combination of the following character states for this species will distinguish it from the other species in the Nearctic fauna: elytra entire, elytral cells not impressed, abdominal sternite III without femoral lines, genital claspers without peg setae, ventral processes of basal piece of tegmen slender, each process with a single seta, flagellum loosely coiled.

Description. Holotype, male, in SEMC, with label data: "USA: Kansas: Jefferson Co. The Falin Property, 1.5 km N jct. 94th St. & Kingman Rd. 39°13.38'N 95°24.24'W 10-14-IV-2005 Z.H. Falin ex. FIT, near lower meadow KAN1F05 025"/"[barcode] SM0751851 KUNHM-ENT". [The holotype is dissected and the genitalia are imbedded in a drop of dimethyl hydantoin formaldehyde (DMHF) on the point with the specimen.]

Body elongate; orange testaceous, elytra paler (Fig. 1). Length, 1.9 mm.

Head 1.8× wider than long; surface shiny, glabrous, with punctures larger than an eye facet separated by about two diameters, interspersed with minute punctures (Fig. 1); clypeus shallowly emarginate; antennal scape elongate, about 0.66 length of head; antenna filiform, very elongate, 0.95 length of body; eye slightly convex, about 0.33 length of head.

Pronotum 1.3× wider than long; surface sculpture as on head, punctures a little larger; broadest just behind anterior margin, gradually narrowing posteriorly, lateral margins almost straight; anterior angles deflected, with a small tooth; posterior angles obtuse, not produced.

Elytra 1.7× longer than combined width; broadest just before middle; striae punctate, not impressed; margins narrowly explanate; conjointly rounded to apex, not truncate.

Male genitalia as in Fig. 2, claspers simple, without peg setae; ventral processes of basal piece of tegmen slender, each with one apical seta; internal sac (Fig. 3) with three spinose structures, a field of microspinules, and greatly elongate, flagellum loosely coiled.

Variation. The paratype series ranges in length from 1.6mm to 2.1mm. The female antennae are proportionately shorter than in males, length attaining about the midpoint of the elytra.



Figure 1. *Placonotus falinorum* Thomas, n. sp., dorsal habitus of holotype less antennae. **Inset,** dorsal habitus of entire specimen.



Figure 2-3. *Placonotus falinorum* Thomas, n. sp. **2)** Male genitalia and claspers. **3)** Detail of armature of internal sac.

Distribution. The species is known only from three localities in Jefferson County in northeastern Kansas.

Type material. Paratypes, 20, as follows: 2, “USA: Kansas: Jefferson Co./The Falin Property, 1.5 km/N jct. 94th St. & Kingman/Rd. 39°13.38’N 95°24.24’W/4-10-IV-2005 Z.H. Falin/ ex. FIT, near lower meadow/ KAN1F05 016”; 3, same except: near upper meadow KAN1F05 019; 1, same except: 15-23-VIII-2004 near upper meadow [no number]; 1, same except: 25-VIII-7-IX-2005 near upper meadow KAN1F05 198; 1, same except: 8-15-VIII-2004 near lower meadow [no number]; 2, same except: 19-24-V-2005 near lower meadow KAN1F05 079; 4, same except: 14-21-IV-2005 near lower meadow KAN1F05 036; 1, same except: 10-14-IV-2005 near upper meadow KAN1F05 028; 1, same except: 12-19-V-2005 near lower meadow KAN1F05 070; 1, same except: 5-12-V-2005 near lower meadow KAN1F05 061; 1, “USA: Kansas: Jefferson Co./Perry State Park, 1km SW; off/ Douglas Rd. 39°06.791’N/95°30.155’W 23-31-V-2006/A. Cruz ex. canopy trap/ KAN1S06 039”; 2, “USA: Kansas: Jefferson Co./University of Kansas Field Station/Unit 4018, Nelson Ravine Forest/39.05181°N 95.19542°W/4-XI-2010 Z.H. Falin ex. sifting/leaf litter KAN1F10 104”. In addition, all paratypes have SEMC bar-code labels. Deposited in SEMC and the Florida State Collection of Arthropods.

Etymology. This species is named for the Zack Falin family, on whose property most of the type series was collected.

Discussion. In the key to New World *Placonotus* (Thomas 1984), *P. falinorum* will key to *P. maya* Thomas, known from Mexico and Guatemala, but also represented in the FSCA by two specimens from Honduras (**new country record**) with the label data: “HONDURAS: Olancho Dept., P.N. La Murella 29-XI-1995”, one each collected by F. W. Skillman, Jr., and R. H. Turnbow. The two species are very similar externally. They differ primarily in details of the male genitalia. In *P. maya*, the ventral processes of the basal piece are relatively broad, each with two apical setae (Thomas 1984: 25, fig. 47), while those of *P. falinorum* are slender and each has only one apical seta (Fig. 2). In *P. maya*, the coiled part of the flagellum is quite long and has about five loose coils (Thomas 1984: 21, fig. 19); in *P. falinorum*, the coiled part of the flagellum is shorter, consisting of only two loose coils (Fig. 3). The shape of the ventral claspers (Fig. 2 and Thomas 1984: 23, fig. 33) in the two species is similar.

Most of the type series was collected in a mixed forest in northeastern Kansas described by the collector (Z. Falin, pers. comm.) as: “The tree composition was quite varied for such a small area, though the forest could be separated into three vague zones. There were cottonwood, sycamore and silver maple trees along the seasonal stream, though I wouldn’t call it a full-blown gallery-type forest. The bulk of the forest was dominated by red and white oaks with hickory, several species of ash, hackberry, black walnut, and various elms mixed in (in about that order of prevalence). There were a few redbud, basswood and ironwood trees sprinkled around as well. Towards the tops of the limestone bluffs where the soil was thinnest and exposure the most, honey locust, hickory and osage orange predominated.”

Acknowledgments

I thank Andrew Cline and Adam Slipinski for reviewing the manuscript. This is Entomology Contribution No. 1191 of the Bureau of Entomology, Nematology, and Plant Pathology, Florida Department of Agriculture and Consumer Services.

Literature Cited

Thomas, M.C. 1984. A revision of the New World species of *Placonotus* Macleay (Coleoptera: Cucujidae). Occasional Papers of the Florida State Collection of Arthropods 3: i-vii, 1-28.

Received August 3, 2011; Accepted August 17, 2011.

Subject edited by F. Shockley.